The possibility of introducing a poison into the body after death, with a view of imputing the crimes of poisoning to an innocent person, is very briefly alluded to. This is a subject of very considerable medico-legal importance, inasmuch as it has been shown[1] that in this way the liver and other viscera of the body may become contaminated through osmosis of the poison from the stomach, and may thus exhibit, apparently, the very best evidence of an *ante-mortem* poisoning. Such a serious mistake would probably be best avoided by an examination of the brain and spinal cord for the alleged poison; since it has been shown by M. Scolosuboff[2] that arsenic (and inferentially all the mineral poisons), when taken as a poison, is always found after death in large quantities in the brain and spinal marrow. In a case of the *post-mortem* imbibition of a poison, it is not possible that the latter could penetrate from the stomach to the contents of the cranium or the spinal column.

From our preceding remarks it will be gathered that we have a high appreciation of Prof. Ogston's lectures, and can cordially recommend the work as accomplishing all that the distinguished author promised for it. The few wood-cuts which accompany the letter-press are by no means on a par with the rest of the volume, which is beautifully gotten up, and bears the Edinburgh imprint.

J. J. R.

ART. XXV.—*Guérison de Six Aveugles-nés.* Par M. le Dr. LOUIS FIALLA, Chef du Service Chirurgical à l'Hôpital Philanthropie. 8vo., pp. 32. Bucarest, Thiel & Weiss, 1878.

THESE cases all occurred in the author's practice in two years. Certainly a very unusual experience, though the statement that but 14 cases of congenital cataract have been reported in 149 years would not give a correct idea of its frequency. This estimate may not be so very far wrong, however, if confined to the kind of cases appropriate for observations such as the author has made. These require a successful operation in a person who is of sufficient age to give an intelligent account of his impressions, and who has been entirely blind before the operation. In a large proportion of cases the operation is performed in early childhood, in many the patients have had more or less vision, enough to guide them partially, before the operation, and in some, it must be confessed, they have not very much after it; not only because the operation for congenital cataract, like all other operations, is subject to mishaps, but because even after the most perfect operation the eye is often found otherwise impaired or imperfectly developed.

Dr. Fialla attributes the unusual number of his cases to a want of confidence in the art of medicine among the lower classes in Roumania, which prevented them from applying earlier for aid. One of them had vision enough before the operation to render his case of little interest; the rest were excellent cases for observation. The oldest was 25 years of age, and the youngest 7; the average age being 15.

All the operations were by discission, the lenses being freely lacerated at one sitting, and, though in several cases there was violent reaction, all seemed to have done well in the end.

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[1] Trans. Col. of Physicians of Philadelphia, Nov. 1876, and number of this Journal for Jan. 1878, p. 284.

[2] Archives de Physiologie, No. 5, Août et Septembre, 1875.

The author's observations upon these patients, when they commenced to use their eyes, fully confirm the generally accepted views. He discovered in none of them any "innate ideas." None showed any indication of an instinctive use of their new-found sense; all had to learn to see. None could distinguish form or distance, or showed at first the slightest recognition by sight alone even of objects that had been familiar to touch for years. Like the famous Caspar Hauser, some found their first experiences painful rather than pleasant; and one who had earned his living as a street musician, and had gone about the town alone for years, lost himself when his eyes were opened, and had to beg some one to lead him home.

Three of the patients had nystagmus, and none of them had perfect control of the external muscles when they commenced to use their eyes. Sometimes a temporary strabismus was noticed when the attempt was made to fix an object. They soon learned, however, to direct the visual axis properly, and in only one case did any difficulty of this kind remain when the patient left the hospital. A similar disappearance of nystagmus after the restoration, or rather acquisition, of sight, is noted in an interesting case of congenital cataract cured by operation, reported by Dr. Wm. Hunt in the *Phila. Med. Times* for June 16, 1875. This result shows how much the delicate equilibrium established among the external muscles of the balls in perfect binocular vision may depend upon practice, and is encouraging to our therapeutic efforts in this direction in cases in which this equilibrium has been disturbed. The nystagmus which is frequently found in miners who pass their lives in subterraneous darkness, and which has attracted much attention lately, is interesting in this connection.

The author calls attention to the fact that the favourable issue in the case of the man 25 years of age shows that the diffused light admitted through a cataractous lens is sufficient to maintain indefinitely the sensitiveness of the retina. This passive suppression of vision is much less injurious to the sensitiveness of the retina (if indeed it is at all so) than the suppression of images formed upon it, but disregarded by the sensorium in the interest of binocular vision, as in the case of strabismus, partial opacities of the cornea, or some cases of difference in the refraction of the eyes. This fact is fatal to the argument sometimes used in favour of operating on monocular cataract to preserve the sensitiveness of the retina.

Observations like the foregoing seem to point to touch as the sense by which chiefly we discern the true state of our relations with the world about us. But, as the author says, all knowledge is from experience—"connaitre demande une habitude antérieure;" and all the senses stand alike in need of exercise and education. The question naturally suggests itself, what kind of notions of things would a person have who had acquired them entirely from perfect vision without the aid of touch?

The perception of colours by persons who have newly acquired the sense of sight is a subject of great interest and some difficulty, and we cannot help suspecting that the views the author has adopted in reference to it may be the result of errors of observation. Of the first patient, a peasant girl 17 years of age, he says: "As to colours, she rapidly learned to distinguish black and white; then red and green. She hesitated over orange, yellow, and especially over the colours which are the result of mingling. The retina perceived the undulations of light, but needed education, which, no doubt, in time will be completed."

The second case recognized very easily black, white, and red, and with greater difficulty green, but none of the other colours. It is added that "it is possible that by exercise the faculty of recognizing colours will be perfected." The third patient added yellow to the list; of the other colours he said this verges on red, or green, or yellow. The fourth had vision enough before the operation to gain some idea of colour. The fifth, a bright boy of seven years, could not name the colours, but showed his perception of them by saying that a white coat was of the same colour as a shirt, and that red objects were of the colour of fire.

The author attributes the imperfection of colour vision in these cases to an imperfection in the development of the retina, and is convinced that, after a time, vision will be perfected in this respect as in others. If these observations may be considered as reliable, it is interesting to note that in no case were the more highly refractive colours at the violet end of the spectrum recognized.

It is not stated what tests were applied, but there is reason to believe that the ability to name a colour was confounded with the physiological perception of it, and that the practice spoken of was rather an effort of the memory than a training of the chromatic sense.

As has been pointed out by Helmholtz and others, the names of colours have no meaning for the colour blind, much less for those who have had no vision at all, and the wonder is not that such persons find it difficult to learn the proper applications of these names, but that they are so soon enabled to make reasonably good guesses.

The simplest, and at the same time the best, means of testing the colour sense is that by comparison. Patients are directed to match strands of coloured worsted. This plan has been extensively adopted in Europe, and attention has been particularly called to it in this country by Dr. B. Joy Jeffries, of Boston.

In the report of the case by Dr. Hunt, it is said "of colour, of course, he had no idea." Certainly not of the name of any colour, but if when he commenced to see he was entirely destitute of the chromatic sense, though he afterwards could distinguish colours perfectly, the fact has an important significance. According to the Young-Helmholtz theory, which is pretty generally accepted as the best that can be done in that direction for the present, there are retinal elements for each of the three primary colours. If this is correct, it should be as natural to perceive these colours, at least, as to distinguish between black and white. At any rate it is not a complicated process requiring the aid of reason, and differs in that respect from recognizing the difference between a flat surface and a solid, or between a sphere and a cube.

The retina can be educated to nice distinction of delicate shades of colouring, but though the ability to perceive a primary colour may be improved it cannot be created, and it is almost universally admitted that a person once colour blind, except from disease, is always colour blind. Dr. B. J. Jeffries has recently written an interesting paper on the incurability of congenital colour blindness. Several French writers have, however, adopted different views. One of them, Delbœuf, maintains that Daltonism is not, according to the Young-Helmholtz theory, due to an atrophy of the red perceiving elements, but to a preponderating susceptibility to green and violet, and claims to have accomplished a partial cure in his own case by the use of a transparent reddish medium to subdue the green and violet rays, and "establish the equilibrium." He is hopeful of still further progress, as he thinks it is probably an affair of time and practice.

Hugo Magnus, of Breslau, has expanded this idea of time and practice into a learned and ingenious argument for the evolution of the colour sense. His conclusions are that "in the primitive period man possessed only the sense of light, that of colour being entirely absent. The sense of colour was produced by gradual development from that of light; colours were perceived sooner in proportion to their luminous intensity: thus, in the order of time, red was the first colour, and violet the last recognized and characterized as such. And it is not impossible that our descendants may acquire the perception of colours which still escape the present generation.''

Lastly, Mr. Gladstone, stimulated by the writings of Magnus, and ''forgetting, for the moment, Turks, Russians, and Bulgarians,'' has published an article in the *Nineteenth Century* fully adopting these views, and he brought the force of his great classical learning to prove that the Homeric age had not advanced much beyond the red and yellow stage of chromatic evolution.

We have seen only an abstract of Magnus's work, and have not learned how he disposes of an obvious difficulty in the fact that some of the lower animals are undoubtedly possessed of a more or less developed colour sense. G. C. H.

ART. XXVI.—*Illustrations of Clinical Surgery.* By JONATHAN HUTCHINSON, F.R.C.S., etc. Fasciculi IX. and X. Folio, pp. 193–244. Philadelphia: Lindsay & Blakiston, 1878.

THESE two parts complete Mr. Hutchinson's first volume, and in giving an analysis of their contents, we finish a pretty full review of the additions this book has made to surgical literature. The reputation of the senior surgeon to the London Hospital is too firmly established to depend altogether upon the reception which this, his latest work, will receive at the hands of the profession. We therefore, acknowledging the work of a masterly hand in its construction, would simply call the attention of the reader to the contents of the book.

Plate XXXII. comprises three figures. The first and third represent instances of extensive depressed fractures which occurred some years ago, and resulted fatally. Mr. Hutchinson thinks that the injury to the cerebral substance was too extensive to admit of much hope from the use of the trephine, yet regrets that a resort was not had to it, as affording the only chance of recovery. In this retrospective prognosis (if the bull may be permitted), he clearly indicates the tendency existing among surgeons to reconsider their attitude of opposition to the operation of trephining, which came in a few years since, and their present inclination to adopt, in a modified degree, the practice of the surgeons of a century ago.

Figure 2 is of much interest, representing as it does a linear fracture which ultimately led to diffuse meningitis with its attendant symptoms. Here the trephine was used late in the case; but, as is most commonly the case, the matter being not confined, no relief was afforded by the step. The case is a good illustration of the progressive infiltration of bone which so often follows upon injury of its structure. It occurred out of the wards of a hospital, and therefore goes to show that such results cannot justly be limited to the effects of hospitalism.

Plate XXXIII. consists of two illustrations of post-mortem perforations of the skull.

Plate XXXIV. represents the appearance of the eye in vaso-motor paralysis, and the difference between the paralyzed pupil when seen in shadow and when brightly illuminated. The letterpress accompanying the illustrations contains a full account of two cases observed by Mr. Hutchinson, in which the cervical sympathetic was injured. The plates are accurately executed, but beyond the very evident paralysis of the pupil of the wounded side, it requires a close examination to distinguish between the sound and injured one. It is impossible